

Port Canaveral Rail Extension  
Scoping Comments  
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Attention: Environmental filing, **Docket No. FD 35852**

- Transportation Systems
  - Why is the Canaveral Lock system no longer a viable option for heavy cargo? “In 1965, the Canaveral Lock, which connects Port Canaveral to the Banana River, and the Canaveral Barge Canal, that connects the Port to the Indian River and Intracoastal Waterway, were dedicated to support increasing demand for access and the growing regional Space Program. The lock is the largest navigation lock in Florida, designed to allow passage of the huge Saturn rocket boosters for the moon-bound Apollo program. For the past 30 years, the shuttle's external VAB and Pads 39A and 39B 49 tank from Louisiana and the retrieved solid rocket boosters passed through the locks on the way to KSC (<http://environmental.ksc.nasa.gov/projects/documents/ShuttleEcologicalEffects.pdf#page=1&zoom=auto,-35,792>).”
  - Is the reduction of diesel emissions in the use of trucks really that substantial based on what it would cost to build this rail line, operate it, maintain it, and disrupt the environment? From the EPA on October 23, 2012, “The cleaner diesel fuel program significantly reduces sulfur content, creating immediate health benefits, and allowing engine manufacturers to begin using advanced emissions control systems that further reduce harmful emissions. The diesel program regulations are located in 40 CFR Part 80 subpart I (<http://www.epa.gov/OTAQ/fuels/dieselfuels/index.htm>).”
  - What other potential rail line routes are being considered? Even the own CEO of Canaveral Port Authority stated to Congress in February of 2014 that the Cape Canaveral Air Force Station was an option but just not in their best interest. The State Road 528 route was also an option, but was an expensive way to go. “In 2012, CPA began discussions with KSC and NASA planners, as well as with CCAFS staff, to explore rail connection to the Port. CPA engaged TranSystems, a local expert in rail studies and design, to perform an initial feasibility study to explore routes of connection. Five routes were determined as possibilities with one eastward parallel to Route 528, two lines through KSC and two lines through both CCAF and KSC. CCAFS did not reject rail access but warned of limited service, delays at launch windows; extensive security and ARC issues to resolve, and planners were not favorable of routing rail through the base. Rail service for a commercial port requires dependable service and the reservations about service interruptions, lack of desired service expressed by CCAFS and potential

security risk and military requirements on the rail, led us to conclude going west via NASA was far more prudent and desirable. The AF direction, while slightly more cost efficient, was far less desired and life cycle cost would likely be higher. Service to CCAFS if ever needed could be achieved by extending rail northward into the base from the port KSC-NASA planners considered the two CCAFS routes and two KSC routes. Extensive discussions were held, meetings attended, environmental concerns considered and reviewed, routes walked and explored, and two routes known as Route 3 and Route 3A proceeded for further study and review, but the route utilizing the upper Jay-Jay Bride and maintaining service to the upper KSC regions including the former shuttle landing facility appeared to become the preferred routes.

The optional 528 route was tabled due to higher home owner objection in past discussions, the expense of two river crossings and bridges, and congestion at Route US1 and 528 for needed connections and the lowest ranking of all options (<http://www.hq.nasa.gov/legislative/hearings/2-10-2014%20WALSH.pdf>)."

It seems that the Canaveral Port Authority is already assuming that the KSC rail extension is a done deal, but it has some unfortunate constraints. "Based on the work that it has already performed, CPA recognizes that the undeveloped portion of the KSC south of the industrial complex—where the new rail connection will be located—contains a number of environmental and physical constraints that would affect the alignment of the new rail connection. These constraints include at least one protected species, wetlands, sea grasses and setbacks from the radar installations ([http://www.portcanaveralraileis.com/documents/information\\_paper.pdf](http://www.portcanaveralraileis.com/documents/information_paper.pdf))."

- Safety

- How will traffic and emergency vehicles be handled through Kennedy Athletic, Recreation, and Social (KARS) Park if there is a crossing?
- How will the threat of hazardous waste mitigated from nearby neighborhoods, tourists, space center workers, etc.? Rail accidents involving hazardous materials are rare, but when a rail accident occurs, evacuations of large sizes (e.g. in the thousands) can be anticipated as well as catastrophic loss of life. "If a 90-ton rail car loaded with chlorine were intentionally ruptured or detonated, it could kill or injure 100 people per second and be fatal to anyone within five miles. Within the first 30 minutes of such an event in a densely populated city such as Washington, 100,000 people could be killed, experts estimate ([http://www.ble-t.org/pr/news/pf\\_headline.asp?id=19238](http://www.ble-t.org/pr/news/pf_headline.asp?id=19238))."
- What about the issue of rail safety due to the threat of terrorism? It would seem the Kennedy Space Center would be a perfect target. Of special consideration to note is catastrophic loss of life, significant damage to national security or defense capabilities, or national economic harm.
- What would happen if there was a spill in the area of Hall Road? Currently, there is no alternate land based exit out of those communities (e.g. Savannahs, private homes, assisted living facility).

- Has a rail routing risk assessment been performed (e.g. transport of crude oil, flammable materials)?
- Land Use
  - Where does this rail line fit into the Master Plan for Kennedy Space Center if it is strictly for commercial purposes and not directly in the interest of space exploration? That seems contrary to the NASA's commitment to stewardship of land use as well as water resources in the Merritt Island Wildlife Refuge. "Major positive Space Shuttle Program effects were derived from the adequate resources available at the Center to implement the numerous environmental laws and regulations designed to enhance the quality of the environment and minimize impacts from human activities. This included reduced discharges of domestic and industrial wastewater, creation of stormwater management systems, remediation of past contamination sites, implementation of hazardous waste management systems, and creation of a culture of sustainability. Working with partners such as the USFWS and the St Johns River Water Management District (SJRWMD), wetlands and scrub restoration and management initiatives were implemented to enhance fish and wildlife populations at the Center. KSC remains the single largest ecological preserve on the east coast of Florida in large part due KSC remains the single largest ecological preserve on the east coast of Florida in large part due to NASA's commitment to Stewardship. Ongoing Ecological Program projects are directed at development of information and knowledge to address future KSC management questions including the transition to a joint government and commercial launch facility, enhanced habitat management requirements for wetlands and scrub, potential impacts of emerging contaminants, and adaptation to climate change including elevated CO 2 and projected sea level rise over the next 50 75 years  
<http://environmental.ksc.nasa.gov/projects/documents/ShuttleEcologicalEffects.pdf#page=1&zoom=auto,-35,792>."
  - How will the rail line/berm/trestle impact flooding in the area and drainage restrictions in the Indian River Lagoon area? Currently, Hall Road is very susceptible to flooding due to the low lying nature of the area. Pumping of excess water into the Indian River Lagoon is crucial  
[http://www.mynews13.com/content/news/cfnews13/news/article.html/content/news/articles/cfn/2014/9/30/crews\\_struggle\\_to\\_pu.html](http://www.mynews13.com/content/news/cfnews13/news/article.html/content/news/articles/cfn/2014/9/30/crews_struggle_to_pu.html)."
- Recreation
  - The area this rail line is proposed to run encompasses so many recreational activities that it seems incomprehensible they will not be effected. (1) What about KARS park (camping, hiking, ball fields, tennis courts, marina/boat ramp, fishing, launch viewing)? The rail will be running so close to it, there will definitely be a negative effect. (2) What about the Indian River Lagoon (IRL) area (fishing, boating, kayaking, paddling, and other water related activities)? With the berm/trestle, and also a planned new terminal in Port Canaveral (50 acres to fill in the Banana River), all water related activities in Indian River Lagoon will be effected. The IRL is a "complex association of terrestrial, wetland

and estuarine ecosystems which combine to create a complex ecosystem mosaic with high habitat diversity (<http://www.sms.si.edu/irlspec/Maps.htm>).” (3)  
What about hunting activities in the area?

- Biological Resources

- If a berm/trestle will be running across Banana River, the impact to seagrasses, wildlife, fisheries, marine mammals, endangered species, etc. would be high. Please see previous topic of “Land Use” for KSC/NASA’s commitment to stewardship of the single largest ecological preserve on the east coast of Florida. For example, “Manatee use of the area has increased dramatically since the start of Space Shuttle flight activities in 1980. It is speculated that this increase is in response to habitat degradation in other areas of the lagoon as well as some recovery of region wide population numbers. In 1990, to further protect this endangered species, the USFWS created a sanctuary for manatees covering the majority of the KSC section of the Banana River (<http://environmental.ksc.nasa.gov/projects/documents/ShuttleEcologicalEffects.pdf#page=1&zoom=auto,-35,792>).”
- On the land area of the Merritt Island Wildlife Refuge, what will happen to wildlife (e.g. mortality, habitat fragmentation) before, during, and after this construction?
- Also, please see “Cumulative Impacts” concerning the Clean Water Act.

- Water Resources

- There needs to be a continuing commitment to the health of water resources in the Indian River Lagoon area. Unfortunately, Kennedy Space Center’s rail line would just be another way to negatively impact the area even further than the space program already has. “Establishment of the space program at the Kennedy Space Center in the early 1960s led to explosive growth along the Indian River Lagoon, bringing prosperity but also negatively impacting water quality in the lagoon system... The IRL watershed is an important economic and biological resource within Florida. More than 50 percent of the Florida east coast fish catch and historically 90 percent of Florida’s clam harvest came from the basin (although clam harvests have declined in recent years). The basin is also an important producer of Florida’s Indian River citrus. Biological diversity is high, with more than 4,000 animal and plant species recorded, including 36 rare and endangered animal species... The large tracts of land needed for security and spaceport facilities resulted in the acquisition of 140,000 acres of beaches, dunes, flatwoods, wetlands, and marshes for the Merritt Island National Wildlife Refuge. ([http://www.protectingourwater.org/watersheds/map/indian\\_river\\_lagoon/](http://www.protectingourwater.org/watersheds/map/indian_river_lagoon/)).”
- Concerning the health of the Indian River Lagoon, it was announced on July 8, 2014 by the St. Johns River Water Management District, “The Board approved an agreement with the Florida Department of Environmental Protection (DEP) to receive \$10 million appropriated by Governor Rick Scott and the 2014 Legislature for the first phase of the Eau Gallie River Muck Dredging Project.” As stated by said Rep. Steve Crisafulli of Merritt Island, “The Indian River Lagoon is a priceless resource to our communities and its ecological health is critical to

the Space Coast economy and our quality of life. I'm proud to serve as a member of the Brevard legislative delegation which was responsible for securing this funding to restore the health and viability of our Indian River Lagoon ([http://webapub.sjrwmd.com/agws10/news\\_release/ViewNews.aspx?nrd=nr14-071](http://webapub.sjrwmd.com/agws10/news_release/ViewNews.aspx?nrd=nr14-071))."

- Navigation
  - There are many things to consider here. How will the berm and trestle interfere with the traffic from the barge canal, Canaveral locks, and Banana River which are all within close proximity of each other? How will the islands such as the popular Ski Island be affected? How will the boaters to and from KARS Park be affected? How will the manatee migration in the area be affected? What about other water species (e.g. dolphins)?
- Geology and Soils
  - The Merritt Island Refuge along with Cape Canaveral forms a barrier island where surface deposits consist primarily of sandy coquina. Merritt Island is nearly a level plain now due to erosion. Soils in the area vary greatly due to landscape position, drainage, and age of parent material. A careful balance needs to be maintained. "Differences in age and parent material account for some soil differences, but on landscapes of Merritt Island with similar age, topography has a dramatic effect on soil formation. Relatively small elevation changes cause dramatic differences in the position of the water table that, in turn, affect leaching, accumulation of organic matter, and formation of soil horizons. In addition, proximity to the lagoon systems influences soil salinity (<http://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/20000116077.pdf>)."
- Air Quality and Climate
  - Residents, space center employees, recreationalists, and tourists will be near this rail line, and of course, so will all the plant and animal species within the refuge. How will we be ensured their health will not be jeopardized? "Numerous epidemiologic studies have consistently demonstrated that living close to major roads or in areas of high traffic density is associated with adverse health effects, including asthma, chronic obstructive pulmonary disease, and other respiratory symptom; cardiovascular disease risk and outcomes; adverse reproductive outcomes; and mortality (<http://www.cdc.gov/mmwr/preview/mmwrhtml/su6203a8.htm>)."
- Noise and Vibration
  - As of the writing of this comment letter, I was unable to obtain the results of the KSC vibration testing of the rail as it related to operations on Kennedy Space Center. The results of this test would prove valuable. "The purpose of the test is to collect amplitude, frequency and vibration test data utilizing two Florida East Coast locomotives operating on KSC tracks to ensure that future railroad operations will not affect launch vehicle processing at the center. Buildings instrumented for the test include the Rotation Processing Surge Facility, Thermal Protection Systems Facility, Vehicle Assembly Building, Orbiter Processing Facility and Booster Fabrication Facility

(<http://mediaarchive.ksc.nasa.gov/detail.cfm?mediaid=70747>).” This test did not appear to account for noise and vibration as it would related to the rail extension through Merritt Island Wildlife Refuge, KARS Park, Indian River Lagoon, and surrounding communities, but rather for KSC facilities. The soundscape should be analyzed for impacts from construction, operation, and maintenance of the rail line. The analysis should also include residential areas, recreational activity areas, impact to tourism, and of course, the delicate wildlife in the areas of both land and water. Short term and long term noise levels should be evaluated.

- Energy Resources
  - Direct and indirect energy resources and potential impacts (e.g. existing or new power lines) need to be evaluated for short term during construction) and long term for maintenance and operation.
- Socioeconomics
  - Would a new road need to be created for the rail construction? If so, how will that impact the area?
  - What about increased traffic on State Road 3, Hall Road, Chase Hammock Road?
  - Will undisturbed areas be affected in the refuge area?
  - What about waterway traffic during construction?
- Cultural and Historic Resources (e.g. historic building, structures, etc.)
  - Will this rail line traverse existing Nationally Register listed/eligible properties (e.g. Elliot Plantation Complex) which could include pre-Columbian Native Americans? Refer to the National Environmental Policy Act, Section 4(f) of the Department of Transportation Act and Section 106 of the National Historic Preservation Act.
- Aesthetics
  - There is no way I can describe in a letter how beautiful the view is from KARS Park to the water, the launch pads, and south to Port Canaveral. I invite you watch these amateur videos (~5,400 total): <https://www.google.com/search?q=kars+park+campground+i&biw=1200&bih=569&tbm=vid&source=lnms&sa=X&ei=8T6DVLHQLMWkNueBg9gF&ved=0CAsQAUoBA&dpr=1.2>. Envision a berm, trestle, and train in your view while looking to the south from KARS Park towards Port Canaveral. Imagine the sound of a train while you're camping or fishing. Because I know no other way for you to appreciate the beauty without you actually seeing it, I invite you to visit the Merritt Island Refuge and KARS Park personally to understand exactly what the proposed rail line/berm/trestle would do the aesthetics of this area. It is unthinkable.
- Environmental Justice
  - N/A
- Cumulative Impacts
  - We would really like to know how we can believe that this train traffic will never grow more than 4 trips (8 total round trip) in a week. Where is that legally



- binding? Will the EIS account for increased traffic in the future because it surely seems to be a real possibility?
- We've heard amazing numbers of 5,000 to 10,000 jobs being created. How is the number of jobs calculated because we've also read where 167 jobs were going to be created? Where did this 5,000 figure come from? What types of jobs are these? Blue collar? How does that equate to the education and experience of the Space Center work force? Many of the Space Center employees from the Space Shuttle program have already found opportunities elsewhere or were retained after the shuttle program ended. Wouldn't the addition of these rail line jobs just mean more bottleneck/traffic into the area?
  - Why aren't we looking at the existing and future benefits from the IRL? "The 5 county area bordering the IRL [Indian River Lagoon] receives tremendous economic benefit from its presence. Commercial and recreational activities around the IRL support approximately 19,000 jobs and generate over \$250 million dollars in annual income. Citrus agriculture in the vicinity of the IRL accounts for over 2 billion dollars per year, while recreational activities such as boating, fishing, water sports, hunting and ecotourism generate approximately \$465 million dollars annually. Commercial fishing enterprises in the IRL and along the Florida coast generate approximately \$140 million dollars in revenues, and account for nearly 15% of the national fish and shellfish harvest. And real estate leasing and sales along the lagoon account for over \$825 million dollars in annual revenue (<http://www.sms.si.edu/irlspec/Maps.htm>).” "Placing an economic value on the Indian River Lagoon system is one of the important steps the Indian River National Estuary Program (IRLNEP) has taken to increase support and justify spending for its many restoration and protection projects. With three main water bodies—the Mosquito Lagoon, Banana River Lagoon, and the Indian River Lagoon—as well as their associated tributaries, the Indian River Lagoon system is considered the most diverse estuarine ecosystem in North America, with over 4,000 species of plants and animals inventoried and more discovered every year. Showing Federal, state, and local partners that the Lagoon is worthy of protection and continued restoration because of its ecological and economic importance is critical ([http://water.epa.gov/type/oceb/nep/upload/2009\\_05\\_28\\_estuaries\\_inaction\\_Efficient\\_IndianRiver.pdf](http://water.epa.gov/type/oceb/nep/upload/2009_05_28_estuaries_inaction_Efficient_IndianRiver.pdf)).”
  - Canaveral Port Authority is planning to expand the Port northward into the Banana River and create a north turning basin for cruise ships and cargo. It seems this rail line will fall into this seemingly perfect plan ([http://www.fsutmsonline.net/images/uploads/CFTPG/Canaveral\\_Presentation\\_Jan\\_2014.pdf](http://www.fsutmsonline.net/images/uploads/CFTPG/Canaveral_Presentation_Jan_2014.pdf)). With this in mind as well as a new rail line, are we paying attention to the Clean Water Act Section 404? "The fundamental rationale of the program is that no discharge of dredged or fill material should be permitted if there is a practicable alternative that would be less damaging to our aquatic resources or if significant degradation would occur to the nation's waters. Permit review and issuance follows a sequence process that encourages avoidance of

impacts, followed by minimizing impacts and, finally, requiring mitigation for unavoidable impacts to the aquatic environment. This sequence is described in the guidelines at Section 404(b)(1) of the Clean Water Act (<http://www.fws.gov/habitatconservation/cwa.htm>)."

- If this rail line is approved, has anyone factored in the negative impact of future growth of Port Canaveral to this delicate area?